

SPECIFICATION Amendments

Please replace paragraph [062], as follows:

[062] For this reason, additional myristylation/palmitoylation recognition sequences were inserted into the amino-terminal region of the G $\alpha$  subunits to produce -6qi4myr and -6qs5myr from -6qi4 and -6qs5, respectively. The protein sequence of -6qi4myr and -6qs5myr at the amino terminus is MGCC (residues 1-4 of SEQ ID NOs: 2 and 4, respectively), in contrast to MACC (residues 1-4 of SEQ ID NOs: 6 and 8, respectively) in the original sequence of the -6q variants. Therefore, the novel constructs, -6qi4myr and -6qs5myr, contain a consensus sequence for myristylation/palmitoylation. It is known that removing myristyl or palmitoyl residues from G-proteins leads to a redistribution in the cell. Loss of palmitate or myristate residues influences the expression pattern of the G-proteins in such a way that G-protein  $\alpha$  subunits are found both in the cell membrane and in the cytosol, but are mainly cytosol-localized. However, only the membrane-bound G-proteins can pass the signals from GPCRs on to intracellular effectors. Only the consequences of removing a consensus sequence for palmitoylation/myristylation by mutation were known. It was not known if introducing an additional consensus site for myristylation/palmitoylation into the G $\alpha$  deletion mutants would affect expression. However, it was possible to show that introducing additional palmitoylation/myristylation sites increases the amount of G $\alpha$  subunits expressed in the cell membrane (fig. 3, fig. 4). The SDS-PAGE Western blot (sodium dodecyl sulfate polyacrylamide gel electrophoresis Western blot) in fig. 3 shows distinctly increased expression of -6qi4myr compared to -6qi4. Fig. 4 depicts an SDS-PAGE Western blot of a fractionation of qwt and -6qi4myr into a membrane-containing particle fraction (P) and a soluble fraction (S; SC). The variant with a higher degree of myristylation/palmitoylation, -6qi4myr, is present only in the particle fraction.